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ABSTRACT

This publication is part of a series of self-instructional teacher training manuals designed to assist vocational-technical educators or industrial trainers to develop and implement competency-based vocational education (CBVE) programs. The purpose stated for this manual is for the instructor to learn to identify, verify, and sequence the job tasks needed by a beginning worker. Each manual contains the following sections: cover page that contains the task title, purpose, and information block (program and task codes, estimated time, prerequisites); terminal performance and micro-performance objectives; procedures for completing this manual; learning activities with required resources cited; information sheets; activity sheets (self-checks) with answer keys; a written examination with answer key; and a product/performance checklist. (YLB)

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# COMPETENCY—BASED INDIVIDUALIZED VOCATIONAL EDUCATIONAL CONSORTIUM

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## A LEARNING GUIDE

**Task** IDENTIFY, VERIFY, AND SEQUENCE JOB TASKS

**Purpose** Before you can develop your competency based vocational education program, you need to identify what to include in your curriculum. This learning guide will help you to identify the tasks needed by a beginning worker. It will also help you to verify (validate) the tasks.

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CE040580

SELF-INSTRUCTIONAL COMPETENCY-BASED PROFESSIONAL TEACHER TRAINING MANUAL

| Program | Task | Est. Time | Prereq. |
|---|---|---|---|
| PTT | 002 | 2 Hours | 001 |

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# IDENTIFY, VERIFY, AND SEQUENCE JOB TASKS

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1985

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| DEPT. | PROG | TASK | TPO | MPO |
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## INTRODUCTION

This publication is part of a series of self-instructional teacher training manuals designed to assist vocational-technical educators or industrial trainers to develop and implement competency based vocational education (CBVE) programs. Each manual addresses a different aspect of CBVE. The entire set is designed to enable teachers, administrators, or industrial trainers to develop the necessary skills needed to successfully develop and implement CBVE programs in a school or industrial setting.

Each manual contains the following sections: Cover page which contains the task title, purpose, and information block; inside pages of performance objective, micro-performance objectives, learning activities, information sheets, activity sheets (self-checks), written exams, and a product/performance checklist.

Manuals have been developed for the following tasks:

1. Identify the Characteristics of a Competency-Based Vocational Education (CBVE) Program
2. Identify and Sequence Job Tasks
3. Write Measurable Performance Objectives
4. Construct Performance and Written Evaluation Instruments
5. Write Student Learning Guides or Competency Sheets
6. Adapt or Revise a Student Learning Guide or Competency Sheet
7. Identify Teaching/Learning Strategies and Management Techniques to Implement CBVE
8. Develop a Learning Resource Center
9. Orient Students to CBVE
10. Write a Student Performance Contract
11. Use Print and Nonprint Resources
12. Monitor Student Progress and Maintain Student Records
13. Assign Grades

14. Identify Necessary Administrative Support

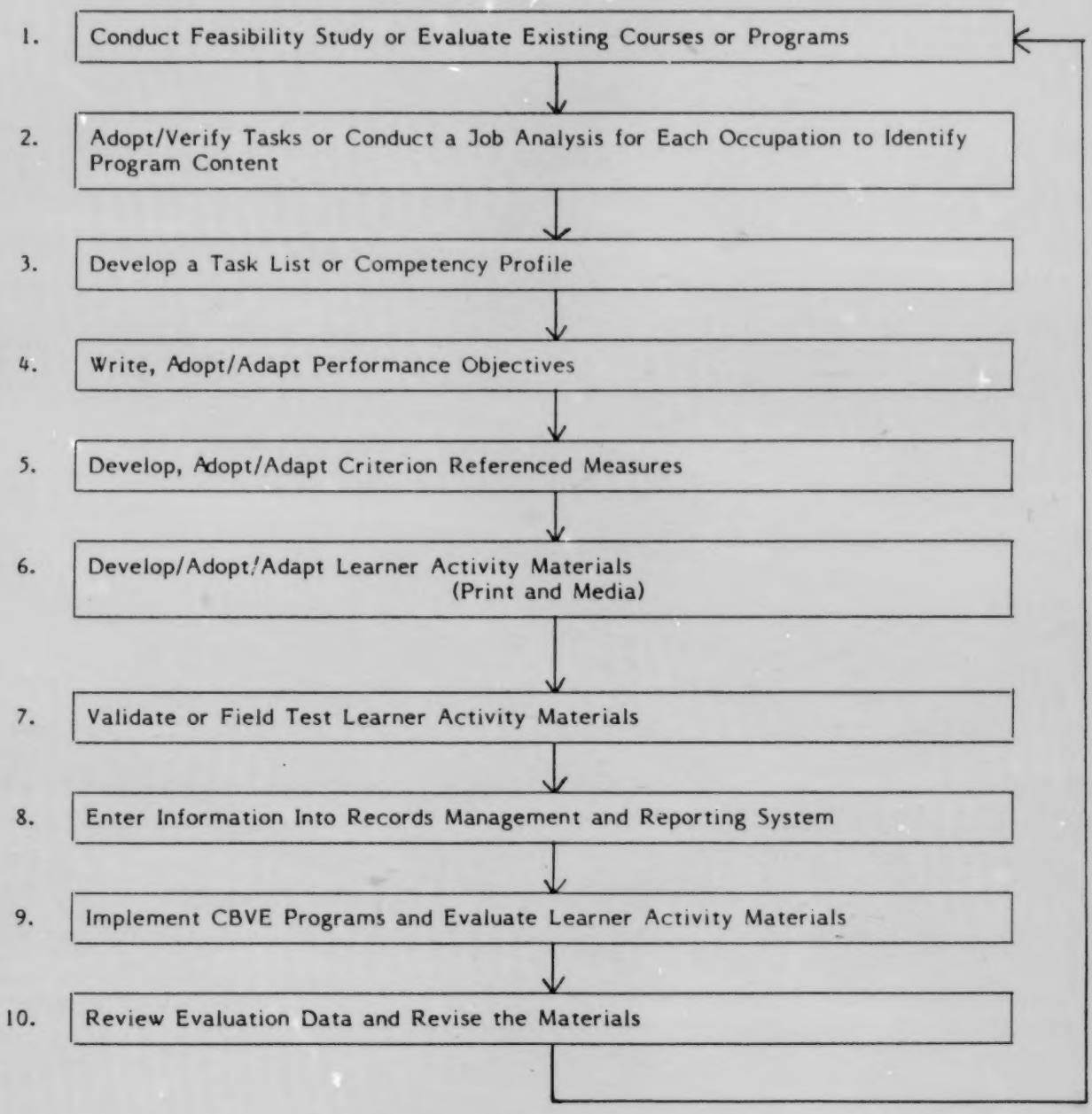
15. Prepare a Staff Development Program

Using the following CBVE systems development model, teachers, trainers, or administrators can develop and implement CBVE programs.

The following institutions deserve credit for the use of some of their materials in the development of these manuals.

- District 916 Area Vocational-Technical Institute, 3300 Century Avenue North, White Bear Lake, MN 55110
- Stephenson Area Career Center, Pearl City Road, Freeport, IL 61032
- Maryland State Department of Education, Division of Vocational Technical Education
- University of South Florida, Division of Vocational Education, Tampa, Florida

CBVE Curriculum Development Model


1. Conduct Feasibility Study or Evaluate Existing Courses or Programs
2. Adopt/Verify Tasks or Conduct a Job Analysis for Each Occupation to Identify Program Content
3. Develop a Task List or Competency Profile
4. Write, Adopt/Adapt Performance Objectives
5. Develop, Adopt/Adapt Criterion Referenced Measures
6. Develop/Adopt/Adapt Learner Activity Materials (Print and Media)
7. Validate or Field Test Learner Activity Materials
8. Enter Information Into Records Management and Reporting System
9. Implement CBVE Programs and Evaluate Learner Activity Materials
10. Review Evaluation Data and Revise the Materials

| DEPT. | PROG | TASK | TPO | MPO |
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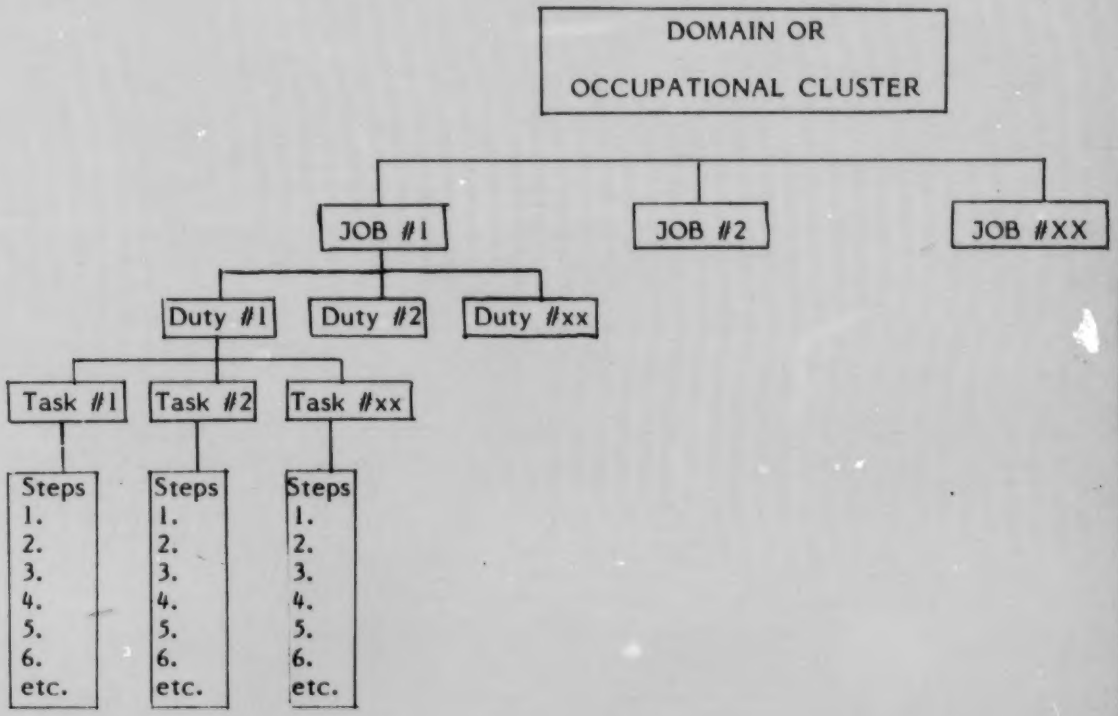
TABLE I

Relationship of an Occupation to Jobs, Duties, Tasks, and Steps

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## FOREWORD

It is necessary to identify and verify job tasks with an advisory committee in order to determine what a person does on the job, and the skills involved in doing the work. This is called an occupational analysis and is essential in order to:

1. establish meaningful objectives
2. determine the behavioral changes you want to effect in the learner
3. determine the correct sequence of instruction
4. specify appropriate teaching-learning techniques
5. establish performance criteria for evaluating the trainees

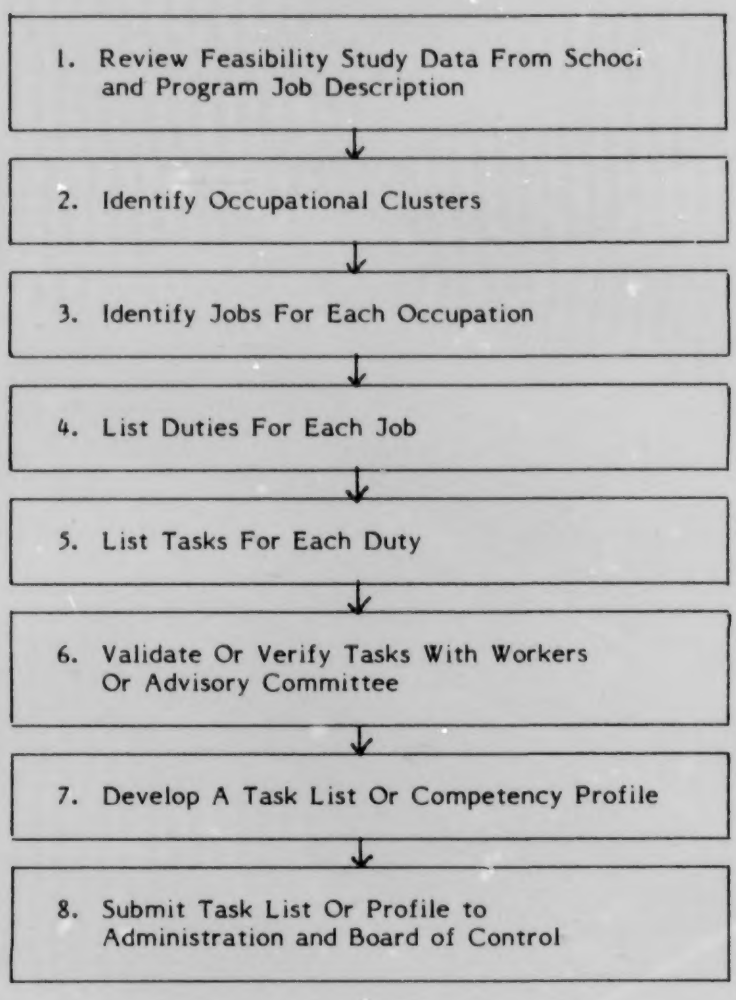
The occupational analysis should also determine which tools and equipment are used by workers, along with job aids, technical manuals used and the standards to be met which involves both speed and accuracy.

The occupational analysis makes use of an inventory which consists of a list of tasks which are categorized under major segments of the job called duties. After the initial occupational analysis is completed, it is recommended that you identify tasks by job title. This latter analysis is essential to identify the minimum skills needed for each job title and is useful for the instructor in counseling students. In addition, this activity fosters the training of the multi-skilled worker rather than the single-skilled worker.

Another useful purpose is to identify the tasks needed for each job in order to satisfy those students who do not wish to, or who are unable to, complete the entire curriculum.

FIGURE I

MODEL FOR THE IDENTIFICATION OF JOB TASKS


1. Review Feasibility Study Data From School and Program Job Description
2. Identify Occupational Clusters
3. Identify Jobs For Each Occupation
4. List Duties For Each Job
5. List Tasks For Each Duty
6. Validate Or Verify Tasks With Workers Or Advisory Committee
7. Develop A Task List Or Competency Profile
8. Submit Task List Or Profile to Administration and Board of Control

| DEPT. | PROG | TASK | TPO | MPO |
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# OBJECTIVES OF THIS MANUAL

## 1. TERMINAL PERFORMANCE OBJECTIVE

GIVEN: A job duty in your occupational area,

YOU WILL: identify, verify, and sequence job tasks.

HOW WELL: You must score 18 out of 18 or 100 percent on a knowledge test, and score 12 out of 14 or 86 percent on a product checklist.

## 2. MICRO-PERFORMANCE OBJECTIVE(S)

1. Identify the job description(s) for the program
2. Identify the duties and tasks of an occupation
3. Construct an occupational inventory and verify the duties and tasks
4. Identify, verify, and sequence job tasks

# PROCEDURES FOR COMPLETING THIS MANUAL

1. Read the foreword
2. Review Table 1 and Figure 1
3. Read the learning steps and resources for each micro-performance objective
4. Complete the activity sheets for each micro-performance objective
5. Complete the written exam
6. Complete the performance test and review with your school's CBVE resource person

# MICRO - PERFORMANCE OBJECTIVE #1

Identify the Job Description(s) for the Program

## LEARNING STEPS

1. Read Resource #1 to assist you in identifying your program job description(s).
2. Complete Resource #2 to check your understanding of a job description.
3. Read Resource #3 for sample program job descriptions.
4. Prepare or revise a program job description.
5. Proceed to next MPO.

## RESOURCES

1. Information Sheet 002-001-001, "Identifying the Program Job Description," in this guide, pages 11-13.
2. Activity Sheet 002-001-002, "Program Job Description", located in this guide, pages 14-17
3. Information Sheet 002-001-003, "Sample Program Job Descriptions," in this guide, page 18.
4. All resources of this MPO and Activity Sheet 002-001-004, "Preparing a Program Job Description" in this guide, page 19.
5. MPO #2 in this guide, page 20.

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INFORMATION SHEET

002-001-001

Identifying the Program Job Description

It is important to locate or develop a program job description in order to identify the parameters of your program. You need to know the job market for graduates, types of jobs for which the graduates are being hired, the limitations or constraints put on your program by the advisory committee, unions, or others. The steps to follow in identifying the program job description are:

1. Contact your department chairperson, division manager, or director to see if a program job description exists. Ask these questions of the person:
   A. Do you have a program job description?
   B. Are there any objectives or purposes already developed for the program?
   C. Are there any limitations or constraints on what can be taught?
   D. Has any time completion constraints been placed on the program such as one or two years?
   E. Do you have copies of advisory committee minutes?
2. Depending on the responses to your questions, you may or may not have identified a program job description. In order to identify the job tasks, you will need to develop a job description. To do this, the following is recommended.
   A. If you have a job description, go to Step 3 on page 12. If you do not have a description, continue with Step 2-B.
   B. Familiarize yourself with possible jobs for which you may be training students. You can do this by:
      1. Reviewing the Dictionary of Occupational Titles to identify possible job titles.
      2. Reviewing the Classification of Instructional Programs (CIPS) to identify reimbursable programs.
      3. Reviewing Competency-Based Individualized Vocational Education (CIVE) task lists by job title.

4. Contacting the Illinois Vocational Curriculum Center for curriculum materials
5. Visiting industries which could hire your graduates and obtain and review their job descriptions
6. Asking your advisory committee
7. Surveying the community
8. Obtaining and reviewing V-TECS catalogs for your program area
9. Obtaining and reviewing accreditation standards (for licensed occupations), competency studies, or publications which may describe the job
10. Interviewing persons presently employed or supervising others employed for the area under consideration
11. For new and/or emerging occupations, you can:
    a. obtain and review articles or publications which discuss the occupation
    b. obtain and review accreditation standards, licensure requirements, or regulatory guidelines which may affect the occupation
    c. obtain and review sample job descriptions prepared by organizations presently employing or intending to employ persons for the job(s) under consideration
    d. identify experts in the field who are knowledgeable regarding the occupational area
    e. review V-TECS catalogs, competency studies, and task lists for occupations related to the new or emerging occupation

    Example job titles for which you may be training are: computer operator, file clerk, secretary, baker's assistant, fry cook, child care aide, dental assistant.

3. Write or refine the program job description. It should have the following characteristics:

A. It should be one to two paragraphs in length for each job title.

B. It should define the entire scope of the course or program by describing what a specific worker does for each job title.

C. It should include the various duties involved and list any special or unusual conditions under which the duties are carried out.

D. It should promote a job-oriented point of view.

E. It should identify some of the more common tasks and equipment used on the job.

F. It should identify the training needed.

G. It should include whether licenses are needed.

NOTE: You may wonder why you need to identify job titles.

In the past, many educators identified all the tasks necessary within the occupation. All students were forced to attempt the tasks. Past practices have shown that only the average and above average will succeed to master all the tasks. Others will give up or drop out. In order to increase the mastery of all students, you should identify job titles for the following reasons:

1. Students who wish to only complete a segment of the program can do so and then exit the program for employment.
2. Others in the community can access your program more easily to only learn a small segment.
3. The program will be training students for actual jobs in the community.
4. Low ability students, special needs students, or handicapped students can specialize in one or two job areas which meet their needs, interests, and abilities. They can usually master these rather than be forced through the entire curriculum where more often than not, they will fail or drop out.
5. The program can usually respond to quickly changing technologies of industry thereby adding or deleting job titles more readily. Information Sheet 002-001-003 contains sample job descriptions.

ACTIVITY SHEET

002-001-002

Program Job Description

Directions: Please complete the following in your own words.

1. Who should you contact in your school to try to locate a program job description?

2. What questions should you ask the school personnel regarding a program job description?

3. List eight possible ways you can familiarize yourself with possible jobs for which you may be training students.

4. List six characteristics of a program job description.

| DEPT. | PROG | TASK | TPO | MPO |
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_____

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5. List four possible ways to gain a familiarity with new or emerging occupations.

_____

_____

_____

_____

Directions: Please indicate whether the following statements are true or false.

6. _____ A job description is not needed in order to identify tasks for a new and emerging occupation.

7. _____ A panel of experts may be used to identify tasks for a new and emerging occupation.

NOTE: Check your answers with the Answer Key on the next page. If your answers are correct, continue on. If you missed any, review Information Sheet 002-001-001.

ANSWER KEY

for Activity Sheet 002-001-002

Program Job Description

Directions: Please check the answers below with your answers.

1. Who should you contact in your school to try to locate a program job description?

   A. Department Chairperson

   B. Division Manager

   C. Director

2. What questions should you ask the school personnel regarding a program job description?

   A. Do you have a program job description?

   B. Are there any objectives or purposes already developed for the program?

   C. Are there any limitations or constraints on what can be taught?

   D. Has any time completion constraints been placed on the program?

   E. Do you have copies of advisory committee minutes?

3. List eight possible ways you can familiarize yourself with possible jobs for which you may be training students.

   A. Review the Dictionary of Occupational Titles.

   B. Review the CIPS to identify reimbursable programs.

   C. Review CIVE task lists by job title.

   D. Contact and obtain materials from the Illinois Vocational Curriculum Center.

   E. Visit industries which could hire your graduates and review job descriptions.

   F. Ask your advisory committee.

   G. Survey the community.

   H. Obtain and review V-TECS catalogs.

   I. Obtain and review accreditation standards, competency studies, or publications.

   J. Interview persons employed or supervising others on the job.

4. List six characteristics of a program job description.
   A. It should be one to two paragraphs in length for each job title.
   B. It should define the entire scope of the course or program by describing what a specific worker does for each job title.

| DEPT. | PROG | TASK | TPO | MPO |
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C. It should include the various duties and any unusual circumstances for job performance.

D. It should promote a job-oriented point of view.

E. It should identify some of the more common tasks and equipment used on the job.

F. It should identify the training needed.

G. It should include whether licenses are needed.

5. List four possible ways to gain a familiarity with new or emerging occupations.

A. Obtain and review articles or publications which discuss the occupation.

B. Obtain and review accreditation standards, licensure requests or regulatory guidelines.

C. Obtain and review sample job descriptions.

E. Identify experts in the field and ask them questions.

F. Review V-TECS catalogs, competency studies and task lists for related occupations.

Directions: Please indicate whether the following statements are true or false.

6. F A job description is not needed in order to identify tasks for a new and emerging occupation.

7. T A panel of experts may be used to identify tasks for a new and emerging occupation.

NOTE: If your answers were correct, continue on. If you missed any, review Information Sheet 002-001-001.

INFORMATION SHEET

002-001-003

Sample Program Job Descriptions *

637.381-014 Refrigeration Unit Repairer (refrigeration equipment)

Replaces defective components and reassembles refrigeration units to work orders and blueprint specifications. Studies rejection slips from inspection department or customer's letters and observes functioning of components, such as controls, fan, condenser, evaporator, or compressor to determine need for repair or replacement. Drains oil and pumps gas from unit. Loosens bolts, and melts soldered or brazed seams, using handtools and torch, to dismantle unit. Removes and replaces defective components. Brazes or solders parts to repair defective joints and leaks. Reassembles unit, using measuring instruments, handtools, soldering iron, and hand torch. Routes defective components to salvage department. May adjust unit controls. Records cause of malfunction, repairs, and replacements made.

637.687-014 Refrigeration-Mechanic Helper

Assists refrigeration mechanic in installing, maintaining, and repairing industrial and commercial refrigeration systems. Transports tools, materials, components, and refuse to and from work area. Lifts or holds parts while refrigeration mechanic fits, alines, and fastens them into position. Bolts or unbolts parts, using handtools. May cut and thread pipe to specified length, using pipe cutter, stock and die. May insulate cabinets and systems. Performs other duties as described under helper (any ind.).

* Dictionary of Occupational Titles, 1977 ed.

ACTIVITY SHEET

002-001-004

Preparing A Program Job Description

Directions: Using the information learned in this micro-performance objective, write a program job description for one or more job title targets for your occupational program. You may use any of the suggested references for help.

NOTE: Review the program job description with your immediate supervisor.

# MICRO - PERFORMANCE OBJECTIVE #2

Identify the Duties and Tasks of an Occupation

## LEARNING STEPS

1. Read Resource #1 for assistance in identifying job tasks.
2. Complete Resource #2 to check your understanding of Step 1.
3. Proceed to next MPO.

## RESOURCES

1. Information Sheet 002-002-001, "How to Identify Job Tasks", located in this guide, pages 21-28.
2. Activity Sheet 002-002-002, "Identifying Duties and Tasks of an Occupation", in this guide, pages 29-33.
3. MPO #3 this guide, page 34.

| DEPT. | PROG | TASK | TPO | MPO |
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INFORMATION SHEET

002-002-001

How to Identify Job Tasks

The procedure to follow in identifying job tasks depends on whether you are developing a program for a new and emerging occupation or for an established occupation. Fortunately, most of your program development efforts will fall into developing a program for an established occupation.

The procedures for each are discussed in this information sheet.

Identifying Job Tasks

The steps to follow in identifying job tasks are as follows:

1. Review feasibility data and the program job description.

   The first step in the development of a CBVE program is an essential step to insure that the program is really needed before time and effort are needlessly spent.

   A. Determine the need for program graduates by reviewing employment projections.

   B. Project costs for running the program over the next five years (instructional, equipment, materials, building).

   C. Verify feasibility data with advisory committee.

   D. Submit results to Administration and Board for approval to develop or revise the curriculum.

   E. Review program job description to identify job duties and tasks.

2. Identify the occupational clusters from the data gathered in Step 1 and MPO #1. There are normally many job titles which make up a particular occupation. Examples for food service would be: head cook, cook, cook's helper, short order cook, pantry person, etc. If you reviewed V-TECS catalogs, you would have come across the term, Domain. The technical term for the cluster of related jobs in a V-TECS catalog is domain. Each V-TECS catalog is organized on the basis of one domain. For example:

| Domain | Jobs |
|---|---|
| Auto Mechanics | Auto Mechanic<br>Auto Service Mechanic<br>Auto Mechanic's Helper |
| Secretarial | Stenographer<br>Clerk-Typist<br>Typist<br>Secretary |

3. Identify the specific job titles for each domain or occupation from the research done in Steps 1 and 2. From the literature and the advisory committee, you should be able to identify all the possible job titles for which you can provide training.

   NOTE: Most of the job titles should have been identified when completing MPO #1.

4. Identify the duties and tasks for each job. Do not attempt at this point to evaluate, classify, or rate the initial laundry list of tasks. There are many sources to which the curriculum planner can turn for help in identifying duties and tasks. These are:

   A. Vocational-Technical Education Consortium of States Catalogs (V-TECS), available from Western Illinois University * for purchase, or the Illinois Vocational Curriculum Center for loan.**

   B. Abstracts of Instructional and Research Materials in Vocational and Technical Education (AIM/ARM). Columbus, Ohio: The Center for Research in Vocational Education, The Ohio State University.

   C. Directory of Task Inventories Columbus, Ohio: The Center for Research in Vocational Education, The Ohio State University.

   D. Educational Resource Information Center (ERIC) reports.

   E. National Curriculum Coordination Centers (Regional Centers).**

* V-TECS, Curriculum Publications Clearinghouse, Western Illinois University, Horrabin Hall 47, Macomb, IL 61455

** East Central Network for Curriculum Coordination/Illinois Vocational Curriculum Center, Sagamon State University, Springfield, IL 62708 (217) 786-6375, Toll Free: 800-252-4822

F. Armed Forces' instructional materials

G. DACUM (Developing A CurriculUM): Prince Edward Island, Canada: Holland College. (Most of these are dated)

H. Competency-based schools in Illinois. A resource for all schools or agencies is the CIVE project, 301 North Swift Road, Addison, IL 60101. Telephone (312) 620-8770, X-239 or 219.

I. For a new and/or emerging occupation, you may need to use a panel of experts.

Examples of job duties and tasks are:

| Job | Duty | Tasks |
|---|---|---|
| 1.0 Auto Mechanic | 1.1 Performing steering and suspension system service | 1.1.1 Inspect steering and suspension system |
| | | 1.1.2 Remove and replace steering and suspension system |
| | 1.2 Performing electrical system service | 1.2.1 Inspect and service battery |
| | | 1.2.2 Remove and replace battery |
| 2.0 Home Furnishings Worker | 2.1 Performing construction duties | 2.1.1 Apply decorative trim by hand |
| | | 2.1.2 Apply decorative trim by machine |
| | 2.2 Using and caring for sewing equipment | 2.2.1 Clean and oil a sewing machine |
| | | 2.2.2 Thread and adjust a sewing machine |
| 3.0 Small Engine Mechanic | 3.1 Using a parts inventory | 3.1.1 Identify a part using a parts catalog |
| | | 3.1.2 Locate parts in stock room |
| | 3.2 Maintaining shop tasks and equipment | 3.2.1 Clean, adjust, and service equipment |

3.2.2 Clean hand tools

3.2.3 Store shop tools and equipment

5. The following should be helpful to you when writing task and duty statements.

A. Job Duties

Job duties are distinct, major activities involved in performing a job, and consist of a collection of related tasks.

1 ) Characteristics of Job Duties

a. A duty is one of the worker's principal responsibilities.

b. It occupies a reasonable portion of the worker's time.

c. It occurs regularly in the worker's work cycle.

d. It describes tasks which involve closely related knowledges and skills.

2 ) Example Job Duties

| (Many Jobs) | (LPN) |
|---|---|
| . Performing supervisory functions | . Performing supervised management functions |
| . Caring for eye injuries | . Providing personal patient care and assistance |
| . Performing mail handling activities | . Performing comfort and safety functions |
| . Performing bench work | . Performing aseptic techniques |
| . Maintaining greens and tees | . Administering treatments |

B. Job Task

. A complete and distinct unit of work performed by an individual on the job.

. Each task has a definite beginning and ending within a limited period of work time.

. Performance of a job task usually results in a product or some observable change in the student or the work environment.

1) Example Tasks (Many Jobs)

- Adjust transcriber controls
- Calculate net salary
- Mix permanent hair colors
- Type business envelopes
- Replace brake shoes
- Disinfect catheters
- Prepare a pot roast
- Mulch seed beds
- Align flight radar timing units
- Develop advertisements
- Inventory stock

(LPN)

- Adjust beds
- Assist patient to ambulate
- Give back rub
- Turn patient in bed
- Apply restraints
- Dress burns
- Wash hands
- Administer tepid baths
- Administer oxygen
- Apply binders
- Irrigate throat

2) Characteristics of Task Statements

a. Each should be a complete statement that begins with a present tense action verb which describes a performance which will be done by the student for mastery. (Avoid the gerund or "ing" form of verb)

Example: . Calculate your net salary

. Replace brake shoes

. Adjust transcriber controls

b. The performance which the task describes must be readily observable or measurable.

Example: . Calculate your net salary

. Replace brake shoes

. Adjust transcriber controls

c. Each is designed to communicate to the student, instructor, administrators, parents, advisory committee members, and employers what must be done to master the task.

d. Words like correctly, safely, is able to, according to industry standards, or to the instructor's satisfaction should not be included in a task statement.

e. Each task statement should be short and concise.

f. Avoid abbreviations when writing task statements.

g. Each task should be typical of an assignment given to a worker in the occupation.

h. Each task should be an entry level activity of the occupation for which training is being provided.

i. Prerequisite tasks should appear first when sequencing tasks within a duty.

j. The task statements should not end with a period.

k. Avoid and/or, etc. When qualifying a task say, "such as" with an example or two.

l. Avoid compound objects if possible.

m. Each task statement must be capable of standing alone and be completely understood.

n. Do not include compound verbs if possible.

o. Do not use colons or semicolons in a task statement.

p. Identify tasks by number such as: Task 101, 210, 350, etc. Each duty area should be a different series of numbers by 50s or 100s depending on the number of duties.

q. Two or more tasks must appear under each duty.

r. Try to avoid cognitive only tasks as much as possible as these would become the first enabling objective, or micro-performance objective, in a learning guide.

s. Combine tasks which take very little time to learn with other related tasks so so that there are very few one- to two-hour tasks. A task in a vocational school or community college should take somewhere between five to twenty hours for completion. For high schools, it is recommended that task time be related to

days with the average time range being two to ten days.

3. The Task Statement

The task statement consists of two or three components: action verb, object, and a qualifier when applicable. The action verb indicates what a person does on the job. The object is the element acted upon. The qualifier may be used to make a task statement more specific, or to distinguish it from similar tasks such as "apply icing by hand" or "apply icing by machine". Qualifiers may limit the task actions to a specific procedure or process, or may identify a specific area of an object. Some examples with and without qualifiers following the object are given on page 28.

| Action Verb | Object | Qualifier |
|---|---|---|
| Refinish | Old surfaces | |
| Apply | Decorative trim | Before finishing |
| Transport | Patient | With a gurney |
| Replace | Brakes | On a Ford automobile |
| Thin | Lacquer | To correct consistency |
| Bake | Cakes | |
| Type | Letter | |
| Type | Letter | From dictation |
| Type | Business letter | From rough, hand written copy |
| Cut | Turfgrass | With verticut mower |
| Make | Boutonnieres | Using piercing wire method |
| Replace | Pipe | Using copper pipe |
| Collect | Specimens | From isolated patient |

Sometimes qualifiers are listed before the object. Examples are underlined:

cut high speed steel

cut mild steel

administer tepid bath

4) Example Appropriate and Inappropriate Verbs and Statements For Use With Task Statements and Measurable Objectives*

| Appropriate (Measurable or Observable) | Inappropriate (Not Measurable or Observable) |
|---|---|
| Adjust | To learn |
| Align | To understand |
| Analyze | To appreciate |
| Assemble | Has responsibility for... |
| Calibrate | Is able to do |
| Clean | Is familiar with |
| Connect | "When appropriate" |
| Disassemble | "To instructor's satisfaction" |
| Fabricate | "As required" |
| Inspect | "In accordance with prescribed procedures" |
| Install | Perform procedure correctly |
| Prepare | Perform skill safely |
| Reassemble | Drill hole accurately |
| Remove | The student will... |
| Repair | To be able to... |
| Replace | Experience |
| Set-up | Develop |
| Tune | Feel |
| Verify | Love |

*NOTE: A complete list of action verbs is appended to this student learning guide, see pages 61-65.

ACTIVITY SHEET

002-002-002

"Identifying Duties and Tasks of An Occupation"

Directions: Please complete the following without looking back at the answers.

1. List two jobs for the auto mechanics domain.

_____

_____

2. Name three sources for duties and tasks.

_____

_____

_____

3. List a duty and task for an auto mechanic or for a home furnishings worker.

| | Duty | Task |
|---|---|---|
| Auto Mechanic | _____ | _____ |
| Home Furnishings Worker | _____ | _____ |

4. Name two characteristics of a job duty.

_____

_____

5. Name four characteristics of task statements.

_____

_____

_____

_____

6. List an appropriate verb which begins with the letter (a).

_____

(Continued on page 30)

ACTIVITY SHEET

002-002-002 (Cont'd.)

Directions: Please analyze the following task statements. Some are correctly stated, and others are not. Place a (✓) mark in front of those which are correctly stated.

_____ 1. Remove and replace brake shoes

_____ 2. Bake a layer cake

_____ 3. Install brake linings correctly

_____ 4. Type a business letter

_____ 5. Operate a drill press safely

_____ 6. Is able to identify lawn weeds

_____ 7. Prepare a balanced ration using corn, soybean oil meal, and oats

_____ 8. Tune an engine to the instructor's satisfaction

_____ 9. Take telephone messages when appropriate

_____ 10. Troubleshooting the electrical system

_____ 11. Installs a car radio

_____ 12. Give a bath with tepid water

_____ 13. To be able to drill a hole

_____ 14. Install a double pole, double throw switch

_____ 15. Complete laboratory work on time

_____ 16. Solve problems requiring the use of percents

_____ 17. Identify the main idea in short spoken selections

_____ 18. Design an experiment to test for a relationship

NOTE: Check your answers with the answer key on pages 31-33. If all your responses were correct, continue on. If you missed any items, review Information Sheet 002-002-001.

ANSWER KEY

for Activity Sheet 002-002-002

"Identifying Duties and Tasks of An Occupation"

Directions: Please compare your responses to those listed below.

1. List two jobs for the auto mechanics domain.

   A. Auto Mechanic

   B. Auto Service Mechanic

   C. Auto Mechanic Helper

2. Name three sources for duties and tasks.

   A. V-TECS Catalogs

   B. AIM/ARM materials

   C. Directory of Task Inventories

   D. ERIC reports

   E. Illinois Vocational Curriculum Center (Armed Forces: CIVE; others)

   F. DACUM

3. List a duty and task for an auto mechanic or for a home furnishings worker.

| | Duty | Task |
|---|---|---|
| Auto Mechanic | A. Performing steering and suspension system service | A.1 Inspect steering and suspension system |
| | | A.2 Remove and replace steering and suspension system. |
| | B. Performing electrical system service | B.1 Inspect and service battery |
| | | B.2 Remove and replace battery |
| Home Furnishings Worker | A. Performing construction duties | A.1 Apply decorative trim by hand |
| | | A.2 Apply decorative trim by machine |
| | B. Using and caring for sewing equipment | B.1 Clean and oil a sewing machine |
| | | B.2 Thread and adjust a sewing machine |

4. Name two characteristics of a job duty.

   A. A duty is one of the worker's principal responsibilities.

   B. It occupies a reasonable portion of the worker's time.

   C. It occurs regularly in the worker's work cycle.

   D. It describes tasks which involve closely related knowledges and skills.

Answer Key for Activity Sheet 002-002-002 (Cont'd.)

5. Name four characteristics of task statements.

A. Each begins with an action verb and is a complete statement.

B. The performance which the task describes must be readily observable or measurable.

C. Each is designed to communicate what must be done to master the task.

D. Each task should be given a different number.

E. Two or more tasks must appear under a duty.

F. Each statement should be short and concise.

G. Avoid abbreviations.

H. Combine tasks which take very little time to learn.

I. Each task should be for entry level training.

J. Words like correctly, safely, is able to, according to industry standards, or to the instructor's satisfaction should not be included in the task statement.

K. Each task should be typical of tasks performed on the job.

L. The task statements should not end with a period.

M. Avoid compound objects if possible.

N. Avoid compound verbs if possible.

O. Do not use colons or semicolons in a task statement.

6. List an appropriate verb which begins with the letter (a).

A. Adjust B. Align C. Analyze D. Assemble

(Continue on with Page 33)

Answer Key for Activity Sheet 002-002-002 (Cont'd.)

Directions: Please compare your responses to those checked below. Those with a (✓) mark are correctly stated. Incorrect parts are circled.

✓ 1. Remove and replace brake shoes

✓ 2. Bake a layer cake

___ 3. Install brake linings (correctly)

✓ 4. Type a business letter

___ 5. Operate a drill press (safely)

___ 6. (Is able to) identify lawn weeds

✓ 7. Prepare a balanced ration using corn, soybean oil meal, and oats

___ 8. Tune an engine (to the instructor's satisfaction)

✓ 9. Take telephone messages when appropriate

___ 10. (Troubleshooting) the electrical system

___ 11. (Installs) a car radio

✓ 12. Give a bath with tepid water

___ 13. (To be able to) drill a hole

✓ 14. Install a double pole, double throw switch

✓ 15. Complete laboratory work on time

✓ 16. Solve problems requiring the use of percents

✓ 17. Identify the main idea in short spoken selections

✓ 18. Design an experiment to test for a relationship

If you missed any of the items, please review Information Sheet 002-002-001 to find the correct answers.

# MICRO - PERFORMANCE OBJECTIVE #3

Construct an Occupational Inventory and Verify the Duties and Tasks

## LEARNING STEPS

1. Read Resource #1 for information on how to construct an occupational inventory and verify the duties and tasks.
2. Complete Resource #2 to check your understanding of verifying duties and tasks.
3. Go on to next MPO.

## RESOURCES

1. Information Sheet 002-003-001, "Verify Job Duties and Tasks," in this guide, pages 35-52.
2. Activity Sheet 002-003-002, "Verify Job Duties and Tasks," in this guide, pages 53-54.
3. MPO #4 in this guide, page 55.

| DEPT. | PROG | TASK | TPO | MPO |
|---|---|---|---|---|
| | PTT | 002 | 002 | 003 |

INFORMATION SHEET

002-003-001

Verify Job Duties and Tasks

The following steps are designed to assist you in verifying the job duties and tasks.

1. Develop an initial list of duties and tasks as a result of completing MPO's one and two.
2. List the tentative list of duties and tasks on Form 002A or B. For an established occupation, it is recommended you use Form 002A. For a new or emerging occupation, use Form 002B. Follow these procedures for entering the duties and tasks on the forms.
   A. Enter the job title at the top of the page.
   B. Write the duty title in the blank entitled "duty".
   C. Use a separate page for each duty title.
   D. List the tasks from your search of the literature on each page under the appropriate duty.
   E. Add tasks based upon your own work experience.
   F. Review the lists with checklist 002 to see how well your duties and tasks meet the standards. Those items receiving a "no" rating should be changed until you can rate each item "yes" on the checklist.
   G. Type up and reproduce the inventory or worksheets. You will need one copy for each advisory committee member.
3. Organize a specialized occupational advisory committee to assist you in refining your lists of tasks. Be sure the committee selected by you is a good cross section of the industries and personnel employed by the industries.
4. Plan and schedule a meeting with your advisory committee or jury of experts. The purpose of this meeting is to:
   A. Further identify duties and tasks
   B. Review job titles and job descriptions

5. Meet with your specialized advisory committee or jury of experts and do the following:

   A. Hand out the job descriptions

   B. Review job descriptions. Add and/or delete parts of it until a majority approve it.

   C. Hand out initial list of duties and tasks.

   D. Try to obtain general agreement on the duties before discussing the specific job tasks.

   E. Then ask the group to review each list of tasks by duty and to react to the list. Then ask them to add any tasks which they feel are missing.

   F. Continue the review until all duties and tasks have been discussed.

   G. At the conclusion of the meeting, inform the members that you will compile their suggestions in writing and mail each a copy. Inform them that a follow-up meeting will be held to verify the new task list.

NOTE: During the meeting, concentrate on expanding the task list. Do not try to limit, evaluate, refine or classify the suggestions as this will have a tendency to stifle the free responses from the committee members.

Attached to Form 002 B, "Task Identification and Analysis Worksheet" are diagnostic questions that you may want to use to elicit responses from your advisory committee. You need not ask all the questions. Many are provided so that you can use different ones to obtain the necessary responses.

   H. For new or emerging occupations, it may not be possible to organize a specialized advisory committee. If this is the case, identify a jury or panel of experts in the field and then do the following:

      1) Prepare a cover letter explaining the nature of your efforts.

      2) Mail the job description and partial list of tasks and ask each expert to expand the list and return it to you in an enclosed stamped self-addressed envelope

      3) Place the lists of tasks from each expert on a form for validation.

4) Mail the list to each expert and ask that each task be rated as to importance and returned to you.

5) Analyze the data from the experts and develop a revised list of verified tasks.

NOTE: Another procedure you could follow is to bring in a panel of experts for several days and use the DACUM approach to identify and verify the tasks.

6. Plan and schedule a follow-up meeting with the specialized occupational advisory committee. The purpose of this meeting is to verify the tasks generated at the first meeting.

7. Prior to the meeting do the following:

   A. Rewrite the task statements so that each begin with an action verb, have an object, are measurable, etc.

   B. Group the tasks under the appropriate duty titles.

   C. List the tasks on Form 002A or 002B.

   D. Mail the lists to the advisory committee members prior to the meeting.

8. Meet with your specialized occupational advisory committee to verify the tasks by rating them as to importance. Each member should individually rate the items. Use the diagnostic questions to assist you with this task. For new and emerging occupations, you may want to complete all the columns on Form 002B. To do this may require more than one meeting.

9. Tabulate the responses after the meeting and analyze the data. In doing this, it is recommended that you assign values to the importance table and multiply the number of responses by each value and divide the sum by the number of responses to determine the mean response. Then by using the following table, you can determine the mean importance for each task.

| Importance | Computational Value Assigned | Interval Limits |
|---|---|---|
| Essential | 3 | 2.50-3.00 |
| Desirable | 2 | 1.50-2.49 |
| Unnecessary | 1 | 1.00-1.49 |
| Not sure | 0 | - |

For those responses in the not sure column, it is OKAY to tabulate them, but do not divide by the NS numbers to determine the average response.

10. Develop a task list or competency profile.

A. After the tasks are verified, those rated as essential are placed on a task list. A task list is a comprehensive list of duties and tasks which spell out clearly and precisely the program tasks. The list varies in size depending on the occupation. The task list serves as the basis for developing the training program. The list is also used by employers to determine what competencies graduates of the program will possess. Students will also find the task list helpful in determining exactly what they will be able to do upon completing a program. Forms 002C and 002D contain a sample task list.

B. Listing of Tasks by Job Title. An optional activity, but highly recommended, is the listing of tasks by job title. One unique feature of personalized CBVE is the ability to uniquely tailor a program to a student's interests, ability, and needs. By listing the tasks by job title as shown on Form 002E, the trainer can insure that students will complete the required tasks in order to be certified by job title. The trend for high schools and secondary area vocational centers is not to require all students to attempt to master all possible tasks in a program, but to complete only those required of certain jobs and those in which they are capable of completing. For community colleges, all critical tasks must be completed for the associate degree.

The procedures to follow in completing this step are to list the tasks on Form 002E by duty title and then submit it to the program advisory committee or jury of experts for determination of which tasks are needed for each job title.

C. Submit task list to administration. After the advisory committee validates the tasks and determines which tasks are needed by job title, a short report should be prepared and submitted to the Administrative body for acceptance and approval.

D. It is recommended that the task lists be re-verified by the advisory committee at least once each year in order to keep the program abreast of current changes.

11. Optional Activity After the advisory committee verifies the tasks, you may wish to prepare a new job inventory and cover letter and administer the inventory to a random sample of workers in the local community or state. By surveying at least 25-30 workers, you can test the validity of your verified list with a larger population. You could also personally interview the sample if you wished.

After the data is collected and summarized, a new task list is prepared. If there are discrepencies in the two lists, the latter list would be considered the most valid one to use.

Articulation and Regionalization

With the new state guidelines on regionalization and articulation, it is recommended that all vocational-technical instructors in a region from the high schools, area vocational centers, and community colleges meet as a group to map out plans to facilitate the curriculum component of regionalization. It is also recommended that a common advisory committee be formed in each region for each occupational area. The advisory committee will be asked to verify the tasks on a regional basis rather than for an individual school. Basically, the procedures would be the same

as spelled out in this manual for an individual school or industry. The advisory committee also would assist the instructors to establish the standards for each task. Since all instructors in the region for a given program area will be using the same task list, along with the same performance objectives and standards, it is only reasonable to expect that both vertical and horizontal articulation will be facilitated. A student entering any given institution in the region would not be required to repeat any tasks previously mastered. Community colleges can expect higher enrollments as they switch to a competency-based regionalized system because students can gain some equivalency courses while in high school. It would be to a student's benefit to enroll in a community college to complete an already started curriculum.

Assistance is available from the Department of Adult, Vocational and Technical Education and from the state funded Illinois Competency-Based Vocational Education staff to help schools with their regional curriculum plans.

Job Analysis Inventory



JOB MACHINIST*

Directions: 1. Add any tasks which you now do but which are missing on the form.

2. Rate the importance of each task for obtaining an entry level job.
CODE: E = Essential, or needs to be able to do; D = Desirable or nice to be able to do; U = Unnecessary; NS = Not Sure.

| DUTY: Performing Metalwork Operations | Importance | | | |
|---|---|---|---|---|
| TASKS | E | D | U | NS |
| 1. Clamp work in holding device | | | | |
| 2. Cut metal stock | | | | |
| 3. Fabricate special metalworking tools | | | | |
| 4. Heat treat metal | | | | |
| 5. Operate cylindrical grinder | | | | |
| 6. Operate hone | | | | |
| 7. Perform bench filing | | | | |
| 8. Polish metal | | | | |
| 9. Use depth gauge | | | | |
| 10. Measure with dial test indicator | | | | |
| 11. Check layout with gauge blocks | | | | |
| 12. Determine accuracy of precision measurement instruments with gauge blocks | | | | |
| 13. Measure with height gauge | | | | |
| 14. Measure with sine bar | | | | |
| 15. (Add tasks here which you feel are missing from list & rate them) | | | | |
| 16. | | | | |
| 17. | | | | |

*From V-TECS Catalog

| DEPT. | PROG | TASK | TPO | MPO |
|---|---|---|---|---|
| | P.T.T. | 002 | 002 | 003 |

FORM 002B

TASK IDENTIFICATION AND ANALYSIS WORKSHEET

Job _____ Duty _____

| Column A (See Attached Diagnostic Questions) | Column B (See Attached Diagnostic Questions) | | Column C (See Attached Diagnostic Questions) | | | | Column D (See Attached Diagnostic Questions) | Column E (See Attached Diagnostic Questions) |
|---|---|---|---|---|---|---|---|---|
| Task Statement | Frequency of Performance | | Importance For Job Entry | | | | Conditions for Task Performance | Criteria That Exhibit Satisfactory Performance of The Task |
| | Every Day Frequently Rarely | No. of Times Per Week Day, Year, or Month | E | D | U | NS | | |
| | | | | | | | | |

E = Essential; D = Desirable; U= Unnecessary; NS = Not Sure

| DEPT. | PROG | TASK | TPO | MPO |
|---|---|---|---|---|
| R.T.T. | 002 | 002 | 003 | |

## SUGGESTIONS FOR USING FORM 002B

Form 002B is suggested for your use in identifying job tasks and other information related to each task. The following paragraphs explain the use of each column of the form. Key questions that should help you draw information from your advisory committee for each column are also attached.

Column A: It is suggested that Column A be used for listing tasks for any particular job. This will undoubtedly require several pages of the form. You may want to use the form during the initial listing; however, it may be better to develop an initial list (from your own experience, literature, interviews, advisory committee, etc.) on blank paper, then organize this list before entering it on the form.

Column B: This column is provided for making frequency ratings, indicating the approximate frequency that the employee would become engaged in the activity. This will, of course, be an average figure based on a variety of estimates and should not be considered as an exact figure. The purpose of the rating is to get an indication of relative importance based on how often the employee would perform the task. A task performed on a daily basis may be considered much more important than one performed only once per month.

Column C: In Column C, each task is rated for its importance for job entry. This rating is again an average and should represent the consensus of some of your own judgments, literature, interviews, advisory committee members, etc. This evaluation allows for a rating independent of frequency. For example, a task that is needed only once a month may be rated as essential to the job and another task performed on a daily basis may only be desirable or even unnecessary.

Column D: Conditions under which the employee will perform the task is important in structuring your learning activities. This column should include statements of special or important conditions under which the employee must demonstrate the task, i.e., will the employee have access to special tools, specific instructions, have a time limitation, etc. This

Suggestions for Using Form 002B (Continued)

column is not intended for listing details, steps, procedures, or other detailing of the original task statement.

Column E. This column is for listing the criteria that will be used to judge satisfactory achievement of each task listed in Column A. Criteria statements may contain quantity, quality, and time standards.

## DIAGNOSTIC QUESTIONS TO AID IN IDENTIFYING TASK STATEMENTS (COLUMN A)

1. What does the person do in performing the job, i.e., what are the common tasks or activities a person must be able to do?
2. What must a person know to be successful on the job?
3. What background information (knowledge) is most important for the employee to know?
4. What are the day-to-day activities performed by the employee?
5. What are the day-to-day problems encountered by the employee?
6. Must the employee solve problems in performing the job? If yes, what type of problems must be solved?
7. What are the entrance requirements for obtaining a job with your company?
   A. Are special tests given? If yes, what are they?
   B. Is a certain level of schooling required?
8. Are there handbooks or lists of rules which an employee must follow in this organization?
9. What kinds of things should the students be able to do at the end of the course or program that will facilitate their becoming a skilled technician in the least amount of time?

## DIAGNOSTIC QUESTIONS TO AID IN IDENTIFYING FREQUENCY OF PERFORMANCE (COLUMN B)

1. How often is the task performed?
2. Is the task used every day? Every week? Every month? Every year?
3. On the average, is the task needed five, ten, twenty-five times per day? Per week? Per month?

## DIAGNOSTIC QUESTIONS TO AID IN IDENTIFYING THE IMPORTANCE OF THE GIVEN TASK (COLUMN C)

1. Is the task essential for job entry?
2. Is the task desirable for job entry?
3. Is the task unnecessary for job entry?
4. What if the task cannot be developed in the educational program?
5. How many of your entering employees now perform this task?
6. How many of those who advance in your organization are able to perform this task?

## DIAGNOSTIC QUESTIONS TO AID IN IDENTIFYING CONDITIONS UNDER WHICH THE TASK WILL BE PERFORMED (COLUMN D)

1. Under what conditions is the task to be used or to be performed?
   - A. Where are the tasks performed?
   - B. When are the tasks performed?
   - C. How are the tasks performed?
   - D. With whom are the tasks performed?
   - E. Are there time limits within which the job or tasks must be performed?
2. What tools or major equipment must the employee be able to operate?
3. Does the employee work mainly with equipment or is there some contact with the customer?
4. Does the employee need any special skills in performing the tasks.
5. What circumstances must exist for the task to be successfully applied?
6. Are there any special requirements?
   - A. Certification
   - B. Registry
   - C. Union requirements
   - D. Age restrictions
   - E. Physical requirements
7. Are there special tools or equipment the employee must use?
   - A. What is the employee supposed to do with the special tools, forms, etc?
   - b. What is the employee not supposed to do with the special tools?
8. Are there forms which must be filled out by the employee?
   - A. What are the forms?
   - B. When are they filled out?

COLUMN D (Continued)

9. What attitudinal characteristics are essential, if any, in performing the tasks?
10. Is the employee expected to diagnose a problem and make a decision as to what must be done to correct the problem? If yes, how do you train the employee to diagnose problems?
11. Is there a correct sequence which must be followed in the performance of the task?
12. Must the employee be able to recognize dangers when performing a task?
13. Does the employee deal with the public while on the job?
14. Are any special or personal attributes required for job success?
15. Are special manipulative skills required? If yes, what are they? What must the employee be able to manipulate?
16. Must the employee be able to recall certain facts, sounds, conditions, reasons, knowledge, etc.? If yes, what are they?
17. Must the employee be able to give or to receive clear and concise verbal orders or directions? If yes, what types or forms of speech must be used?

## DIAGNOSTIC QUESTIONS TO AID IN IDENTIFYING CRITERIA THAT EXHIBIT SATISFACTORY PERFORMANCE OF THE TASK (COLUMN E)

1. What criteria can be used to evaluate acceptable employee performance of the task?

   A. What quality?

   B. How fast? (Time or quantity)

2. How well should the task be achieved?

3. What criteria can be used to evaluate unacceptable task performance?

4. Must the employee be able to discriminate between items or things for a quality judgment?

   If yes, what are these items?

5. What are the most common mistakes made by employees in performing the task?

   A. Beginning employees?

   B. Skilled employees?

6. Upon what basis do you evaluate your employees for promotion?

7. What factors are used in evaluation?

8. Why do people get fired from this job?

9. Why do people get promoted?

10. Describe your best employees.

11. Describe your poorest employees.

| DEPT. | PROG | TASK | TPO | MPO |
|---|---|---|---|---|
| | P.T.T. | 002 | 002 | 003 |

PROGRESS HIGH SCHOOL OCTOBER 1, 1984

TASK LIST

Student Name _____ Entrance Date _____

Program Name Food Service Exit Date _____

Department Number _____ Program Number _____

TOTAL TASKS FOR PROGRAM: 140

| Task | Standard Hours | Contracted Hours | Mastery Hours | Instructor Initials | Task Description |
|---|---|---|---|---|---|
| | | | Identifying Operational/Safety Procedures | | |
| 001 | 4 | ---- | ---- | ---- | Outline procedures and rules of Progress High School. |
| 002 | 3 | ---- | ---- | ---- | Identify and demonstrate general safety procedures. |
| 003 | 2 | ---- | ---- | ---- | Participate in VICA. |
| | | | Cleaning and Maintaining Food Service Area and Fquipment | | |
| 101 | 4 | ---- | ---- | ---- | Identify food preparation techniques which prevent contamination. |
| 103 | 3 | ---- | ---- | ---- | Identify food holding and storage techniques which prevent contamination. |
| 105 | 3 | ---- | ---- | ---- | Identify food serving techniques which prevent contamination. |
| 107 | 2 | ---- | ---- | ---- | Identify standards of personal hygiene. |
| 109 | 5 | ---- | ---- | ---- | Clean and sanitize small hand tools. |
| 111 | 9 | ---- | ---- | ---- | Clean and sanitize equipment. |

Form 002D

SAMPLE TASK LIST

Machine Shop *

| | |
|---|---|
| 100-199 | Performing Supervisory Functions |
| | 110 Coordinate workers with work to be done |
| | 120 Determine availability of supplies and materials |
| | 130 Maintain files |
| | 140 Order and receive stock |
| 200-299 | Performing Mathematical Calculations |
| | 210 Apply dimensions of parts from blueprints... |
| | 220 Calculate amount of materials to be removed... |
| | 230 Calculate change gearing for threading |
| 300-399 | Performing Bench Work |
| | 310 Cut materials with hand hacksaws |
| | 320 Cut threads with hand taps |
| | 330 Cut threads with dies |

* From V-TECS Catalog

Form 002E

Listing of Tasks by Job Title

Program Name Secretarial (Business Education)

Duty: A -- Maintaining Office Supplies

| TASK NO. | TASK DESCRIPTION | Stenographer 202.362.010 | Typist 203.582-066 | Secretary 201.362-030 | Administrative Secretary 161.167-014 | Administrative Assistant 161.167.010 | |
|---|---|---|---|---|---|---|---|
| 105 | Order supplies as needed from suppliers | X | X | X | X | X | |
| 110 | Prepare requisitions for supplies | X | X | X | X | X | |
| 115 | Distribute and control office supplies | | | X | X | X | |
| 120 | Determine requirements for supplies | | | X | X | X | |
| 125 | Check inventory to determine if minimum quantities of supplies are on hand | X | X | X | X | X | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

ACTIVITY SHEET

002-003-002

Verify Job Duties and Tasks

Directions: Please complete the following questions without looking back at the information.

1. List two activities you should do prior to your first advisory committee meeting.

   A. _____

   _____

   B. _____

   _____

2. Arrange the following activities in the correct order as was suggested you do at your first advisory committee meeting. Place a 1 for that to be done first; and a 2 for that to be done second, etc.

   _____A. Hand out initial list of duties and tasks.

   _____B. Review the job description.

   _____C. Try to obtain general agreement on the duties.

   _____D. Hand out the job description.

   _____E. Ask the committee to review the list of tasks.

3. What is the purpose of the follow-up advisory committee meeting?

   _____

   _____

4. Define a task list.

   _____

   _____

5. What is the main reason for having the advisory committee to identify the tasks by job title?

   _____

   _____

NOTE: Check your answers with the answer key. If all are correct, proceed to MPO#4. If you missed any items, please review Information Sheet 002-003-001.

| DEPT. | PROG | TASK | TPO | MPO |
|---|---|---|---|---|
| | P.T.T. | 002 | 002 | 003 |

ANSWER KEY

for Activity Sheet 002-003-002

Verify Job Duties and Tasks

Directions: Please check your answers with those listed below.

1. List two activities you should do prior to your first advisory committee meeting.

   A. Develop an initial list of duties and tasks.

   B. List the duties and tasks on a form for validation.

   C. Organize a specialized advisory committee.

   D. Plan and schedule a meeting.

2. Arrange the following activities in the correct order as was suggested you do at your first advisory committee meeting. Place a 1 for that to be done first; and a 2 for that to be done second, etc.

   3 A. Hand out initial list of duties and tasks.

   2 B. Review the job description.

   4 C. Try to obtain general agreement on the duties.

   1 D. Hand out the job description.

   5 E. Ask the committee to review the list of tasks.

3. What is the purpose of the follow-up advisory committee meeting?

   To verify the list of tasks generated at the first meeting.

4. Define a task list.

   A task list is a comprehensive list of duties and tasks which spell out clearly and precisely the program tasks.

5. What is the main reason for having the advisory committee to identify the tasks by job title?

   To insure that students will complete the required tasks in order to be certified by job title.

NOTE: If all your answers are correct, proceed to MPO#4. If you missed any items, please review Information Sheet 002-003-001.

| DEPT. | PROG | TASK | TPO | MPO |
|---|---|---|---|---|
| | P.T.T. | 002 | 002 | 003 |

# MICRO - PERFORMANCE OBJECTIVE #4

Identify, Verify, and Sequence Job Tasks

## LEARNING STEPS

1. Read Resource #1 for information on sequencing job tasks.
2. Complete Resource #2 to check your understanding of sequencing job tasks.
3. Review Resource #3 for action verbs for use with developing task lists.
4. Read Resource #4 to learn how to prepare a numbered task list.
5. Complete Resource #5 to check your understanding of a numbered task list.
6. Complete Resource #6 to learn about task detailing.
7. Complete Resource #7 to check your understanding of task detailing.
8. When you feel you know how to identify, verify, and sequence job tasks, take the written exam.
9. When you feel you can identify, verify, and sequence job tasks without resources or assistance, perform for evaluation.

## RESOURCES

1. Information Sheet 002-004-001, "Sequencing Job Tasks, " in this guide, pages 56-57.
2. Activity Sheet 002-004-002, "Sequencing Job Tasks," in this guide, pages 58-59.
3. Information Sheet 002-004-003, "Action Verbs," in this guide, pages 60-65.
4. Information Sheet 002-004-004, "Preparing a Numbered Task List," in this guide, pages 66-74.
5. Activity Sheet 002-004-005, "Preparing a Numbered Task List," in this guide pages 75-76.
6. Information Sheet 002-004-006, "Task Detailing," in this guide, pages 77-83.
7. Activity Sheet 002-004-007, "Task Detailing," in this guide, pages 84-85.
8. Written Criterion Exam: Task 002, pages 86-90.
9. Product Checklist: Task 002, pages 92-93.

   Activity Sheet 002-004-008, "Identify, Verify, and Sequence Job Tasks," in this guide, page 91.

| DEPT. | PROG | TASK | TPO | MPO |
|---|---|---|---|---|
| | PTT | 002 | 002 | 004 |

INFORMATION SHEET

002-004-001

Sequencing Job Tasks

Since the completion of tasks takes place over a period of time, you must consider the sequence in which the student will encounter the tasks. In developing your instructional program, you should place the tasks in the sequence you want the students to learn them. You should sequence tasks so that the transition from learning one task to another will be smooth and meaningful for the learners.

Sequencing of job tasks should be based upon the logical order to task mastery in the occupation. Selected basic tasks must be completed before trainees attempt to learn more complex tasks which depend on the learner having mastered the basic tasks. In other words, some tasks may need to be learned first. For example, the trainee needs to know how to use the spray gun and prepare a vehicle for painting before attempting to spray paint a vehicle.

Tasks can be divided into two groups. Those related to each other in one or more ways, and those which are unrelated to each other. For the related tasks, it usually is necessary to learn one or more tasks before learning others. For the unrelated tasks, the order of learning does not make any difference.

When job tasks are not related to each other, sequencing is not a problem. You can sequence them any way you want. But the sequencing of related tasks depends on the following:

1. Are the tasks basic job tasks?
2. Are they tasks that are common to doing many other tasks?
3. Are the tasks part of a list necessary to learn first before the trainee can master the more complex tasks?

Arranging and Sequencing Related Tasks

Basic Job Tasks should be taught early in the program. Students must master these basic tasks in order to have the skills necessary to do other tasks. Be careful, however, not to have

students learn these basic job tasks early in a program and then not use these tasks for a long time. If trainees do not use a task shortly after they master it, the task may be forgotten.

Learning is more effective if related tasks are learned in a fixed order. This fixed order should be the same order that they are performed on the job.

The Following Will Assist You to Sequence Tasks:

1. Teach the basic tasks first before the more complex tasks.
2. Sequence tasks in the order in which you want the students to learn them.
3. Group related tasks so they can be learned in a fixed order which is the same order as on the job.

ACTIVITY SHEET

002-004-002

Sequencing Job Tasks

Directions: Please respond to the following questions.

1. Why should a curriculum planner sequence job tasks?

_____

_____

2. Define the term, "related tasks".

_____

_____

3. Explain what is meant by an "unrelated task."

_____

_____

NOTE: Check your answers with the answer key on page 59. If all are correct, proceed to next activity. If you missed any, review Information Sheet 002-004-001 before proceeding.

ANSWER KEY

for Activity Sheet 002-004-002

Sequencing Job Tasks

Directions: Please check your answers with the following responses.

1. Why should a curriculum planner sequence job tasks?

A. So that the transition from learning one task to another will be smooth and meaningful for the learners. B. To help insure that the tasks learned will transfer to the job.

2. Define the term, "related tasks".

Related tasks are related to each other. For the related tasks, it usually is necessary to learn one or more tasks before learning others.

3. Explain what is meant by an "unrelated task."

Unrelated tasks are those which are independent to other tasks. The performance of one task is not necessary for the performance of another task.

NOTE: If all your answers were correct, proceed to the next activity. If you missed any, review Information Sheet 002-004-001 before proceeding.

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INFORMATION SHEET

002-004-003

Action Verbs

For The

Cognitive

Affective

And

Psychomotor

Domains

A TAXONOMY OF ACTION VERBS APPROPRIATE TO THE AFFECTIVE DOMAIN.

## AFFECTIVE (A)

### A-1.0 RECEIVING

accept
accumulate
ask
choose
combine
control
differentiate
follow
listen (for)
reply
select
separate
set apart
share

### A-2.0 Responding

answer
approve
commend
comply
conform
discuss
follow
help
play
practice
read
volunteer

### A-3.0 VALUING

argue
assist
debate
deny
help
increase measured proficiency in
increase numbers in
join
protest
read
relinquish
select
support
specify

### A-4.0 ORGANIZATION

abstract
adhere
alter
arrange
balance
combine
compare
define
discuss
formulate
integrate
organize
prepare
theorize

### A-5.0 CHARACTERIZATION

act
avoid
change
complete
display
manage
perform
quality
rated high by peers
require
resist
resolve
revise
serve
solve
superiors, or subordinate
verify

A TAXONOMY OF ACTION VERBS APPROPRIATE TO THE COGNITIVE DOMAIN.

COGNITIVE (C)

| C-1.0 KNOWLEDGE | C-2.0 COMPREHENSION | C-3.0 APPLICATION |
|---|---|---|
| acquire | associate | apply |
| count | classify | calculate |
| define | compare | change |
| draw | compute | classify |
| identify | contrast | complete |
| indicate | convert | demonstrate |
| label | describe | discover |
| list | differentiate | employ |
| match | discuss | examine |
| name | distinguish | illustrate |
| outline | estimate | manipulate |
| point | explain | operate |
| quote | extrapolate | practice |
| read | interpret | prepare |
| recall | interpolate | produce |
| recite | predict | relate |
| recognize | rewrite | solve |
| record | translate | use |
| repeat | | utilize |
| state | | |
| tabulate | | |
| trace | | |
| write | | |

## COGNITIVE (C) (continued)

### C-4.0 ANALYSIS

analyze
construct
detect
diagram
differentiate
explain
infer
outline
separate
subdivide
summarize

### C-5.0 SYNTHESIS

arrange
categorize
combine
construct
create
design
develop
explain
formulate
generate
generalize
integrate
organize
plan
prepare
prescribe
produce
propose
rearrange
reconstruct
specify
summarize

### C-6.0 EVALUATION

appraise
assess
compare
critique
determine
evaluate
grade
judge
justify
measure
rank
rate
select
support
test
recommend

A TAXONOMY OF ACTION VERBS APPROPRIATE TO THE PSYCHOMOTOR DOMAIN.

PSYCHOMOTOR (P)*

P-1.0 Perception
P-2.0 Set
P-3.0 Guided Response
P-4.0 Mechanism
P-5.0 Complex Overt Response

apply
assemble
build
change
clear
calibrate
compose
connect
construct
correct
cut
demonstrate
design

discover
dismantle
draw
fabricate
fasten
feel
follow
form
hear
imitate
install

layout
locate
maintain

make
make-up
manipulate
manufacture
measure
mix
operate
organize
perform
plan
position
put together
remove
restore
see
select
sense
service
sharpen
simulate
smell
touch
trace
troubleshoot

use
visualize

*Verbs in the psychomotor domain may be appropriate to several levels within the domain. The level of proficiency desired for a given activity may determine the level of the domain to use.

## GENERAL ACTION VERB LIST

Accomplish
Actuate
Adapt
Adjust
Advise
Aid
Alert
Align
Allocate
Alternate
Analyze
Apply
Arrange
Ascertain
Assemble
Assess
Assign
Assist
Assure
Attach

Balance

Calculate
Calibrate
Categorize
Change
Channel
Charge
Check
Check-out
Classify
Clean
Clear
Collect
Communicate
Compare
Compile
Comply
Compute
Condition
Conduct
Confer
Connect
Consolidate
Construct
Contact
Control
Coordinate
Copy
Correct

Destroy
Detect
Determine
Develop
Devise
Diagnose
Disassemble
Disconnect
Dismantle
Dispatch
Dispose
Distribute

Effect
Eliminate
Employ
Enforce
Engage
Enter
Erect
Establish
Estimate
Evaluate
Examine
Expedite

Fabricate
Figure
File
Follow
Form
Furnish
Guard
Guide

Handle
Hang
Help

Identify
Immerse
Improve
Indicate
Inform
Initiate
Inject
Inspect
Install
Insure
Intercept
Interpret
Investigate
Isolate

Join

Level
Locate
Lubricate

Maintain
Mate
Measure
Modify
Monitor
Mount

Notify

Observe
Obtain
Operate
Order
Organize
Orient
Originate
Overhaul

Pain
Patch
Perform
Place
Plan
Position
Post
Prepare
Prescribe
Preset
Prevent
Probe
Process
Project
Program
Provide
Puncture

Qualify

Read
Ready
Reassemble
Recall
Receive
Recommend
Recondition
Record
Regulate
Reject
Relay
Remove
Renovate
Repair
Repeat
Replace
Replenish
Request
Resolve
Restore
Review
Rework
Rotate
Route

Safeguard
Safety
Salvage
Scan
Schedule
Secure
Set
Set-up
Signal
Simulate
Specify
Stimulate
Store
Stow
Submit
Suggest

Supervise
Survey
Synchronize

Tabulate
Test
Tighten
Trace
Translate
Transmit
Transport
Trim
Troubleshoot
Tune

Use

Verify

Zero

Those verbs which are underlined are the ones most commonly used in "doing" statements. (Any word that shows action).

| DEPT. | PROG | TASK | TPO | TPO |
|---|---|---|---|---|
| | P.T.T. | 002 | 002 | 004 |

INFORMATION SHEET

002-004-004

Preparing a Numbered Task List

There are two common formats for preparing numbered task lists. The one format involves the assigning of a different set of numbers for each duty area of the program. If there are less than 10 major areas in your program, each duty area can begin with a 100 series of numbers such as 101, 102, 201, 202, 301, 302, etc. If there are more than 10 areas, the duty areas are divided into 50s or some other similar system. An example of a task system using only numbers is as follows.

Example 1

FOOD SERVICE TASK LIST

| Task Number | Task Description |
|---|---|
| 001-099 | Orientation/Safety |
| 001 | Outline procedures and rules of Progress High School |
| 003 | Identify occupational safety hazards |
| 005 | Identify food service personal safety habits |
| 100-199 | Sanitation |
| 105 | Identify food preparation techniques which prevent contamination |
| 110 | Identify food holding and storage techniques which prevent contamination |
| 200-299 | Food Preparation |
| 201 | Cut vegetables with Chef's knife |
| 205 | Prepare hot sandwiches |

| 300-399 | Baking |
|---|---|
| 301 | Prepare sponge cakes |
| 305 | Prepare crumb crust pies |

In the other common system, each duty area is assigned a letter of the alphabet with each task then assigned a number under each duty area. An example is as follows:

Example 2

Clerical Task List

| DUTY TASK NO. | TASK TITLE |
|---|---|
| A | Performing Typewriting Tasks |
| 01 | Demonstrate correct typewriting technique |
| 03 | Demonstrate keyboard control |
| 05 | Type from facsimile copy |
| B | Processing Incoming and Outgoing Mail |
| 01 | Classify mail services |
| 03 | Process incoming and outgoing mail |

Of the two examples, please note that example 1 uses a different number for each task and that no number is repeated. In example 2, numbers are repeated for different tasks under each duty title.

To facilitate machine processing of task lists and avoiding the confusion which can develop from having 9 or 10 task 001's in a program, examples one or three are recommended or else example two should be modified so that each task has a different number. An example would be:

Example 3

MACHINE TRADES TASK LIST

| Duty | TASK NO. | DUTY/TASK TITLE |
|---|---|---|
| A | Task No. | Performing Supervisory Functions |
| | 001 | Coordinate workers with work to be done |
| | 003 | Maintain files |
| | 005 | Order and receive stock |
| B | | Performing Mathematical Calculations |
| | 021 | Calculate amount of materials to be removed... |
| | 023 | Calculate change gearing for threading |
| C | | Performing Bench Work |
| | 101 | Cut materials with hand hacksaws |
| | 103 | Cut threads with hand taps |
| | 105 | Cut threads with dies |

Numbers are arbitrarily assigned to the tasks. You should skip one or two numbers between each task so that if a task were to be added to this list, it could be easily added without adding it to the end of the list or renumbering the entire list.

For example, task 002 Identify Occupational Safety Hazards could easily be added to task list #1 with the other closely related tasks. In addition, continuously numbered task lists do not allow the addition of new tasks without renumbering except as an end addition. It is improper to use letters with numbers such as 003a.

Preparing a task list for machine or computer use

You may wish to enter your task lists into a computer for storage and retrieval. The main advantages to this system are:

1. Additions to the list can be done with ease
2. New task lists can be generated very easily
3. New lists are always up to date
4. Stored task lists can be the basis for generating a certificate

When preparing a task list for machine use, it is recommended that you group the programs by division or department into the computer. For example, you could list each of your programs by department and then arbitrarily assign numbers to them. An example could be:

PROGRAM LISTINGS
by

Department and Program Codes

| Department | Code No. | Programs | Code No. |
|---|---|---|---|
| Transportation | 100 | Auto Mechanics | 110 |
| | | Auto Body | 120 |
| | | Diesel Mechanics | 130 |
| | | Aviation | 140 |
| Trade and Industrial | 200 | Drafting | 210 |
| | | Machine Trades | 220 |
| | | Welding | 230 |
| | | Printing | 240 |
| | | Electronics | 250 |
| | | Construction Trades | 260 |
| Business and Office | 300 | Accounting | 310 |
| | | Typing | 320 |

| Department | Code No. | Programs | Code No. |
|---|---|---|---|
| Business and Office (Cont.) | 300 | Shorthand | 330 |
| | | Word Processing | 340 |
| | | Data Processing | 350 |
| Health | 400 | Health Occupations | 410 |
| | | Nursing Aide | 420 |
| | | Ward Clerk | 430 |
| | | Dental Aide | 440 |
| Personal and Public Service | 500 | Food Service | 510 |
| | | Child Care | 520 |
| | | Home Economics | 530 |
| | | Cosmetology | 540 |
| Agriculture and Related Science | 600 | Vocational Agriculture | 610 |
| | | Ornamental Horticulture | 620 |
| | | Natural Resources | 630 |

Using the above (or aforementioned) department and program codes, one could generate a task list as follows:

Machine Trades Task List

| Department | Program | Task No. | Task Description |
|---|---|---|---|
| | | | Performing Safety/ Orientation Functions |
| 200 | 220 | 001 | Identify and comply with safety practices in the lab. |
| 200 | 220 | 003 | Outline procedures and rules of the program |
| 200 | 220 | 005 | Identify machine trades occupations |
| 200 | 220 | 007 | Participate in VICA |

| Department | Program | Task No. | Task Description |
|---|---|---|---|
| | | | **Measuring and Layout** |
| 200 - | 220 - | 105 | Identify and locate layout tools |
| 200 - | 220 - | 110 | Identify and use semi-precision measuring instruments |
| 200 - | 220 - | 120 | Identify precision measuring instruments |
| 200 - | 220 - | 125 | Measure with vernier caliper |
| 200 - | 220 - | 130 | Measure with dial calipers |
| | | | **Using Hand Tools and Performing Bench Work** |
| 200 - | 220 - | 205 | Identify and locate hand tools |
| 200 - | 220 - | 210 | Cut material with hand hacksaw |
| 200 - | 220 - | 215 | Describe and use various files |
| 200 - | 220 - | 220 | Cut threads by hand with a tap and die |
| 200 - | 220 - | 225 | Identify and use chisels and punches |

There are other systems one could use but it is felt that these cause extra problems or concerns within the system. For instance, in many schools or businesses, the learning resource center is the hub of media delivery and for the handing out and monitoring of student or trainee materials. Some systems use a program code as the first three digits and then the middle digits to designate different major areas within a program. An example for office occupations could be:

OFFICE OCCUPATIONS TASK LIST

| Program | Area | Task No. | Task Description |
|---|---|---|---|
| 700 | 710 | 001 | Type letters with modified block style |
| 700 | 710 | 005 | Type letters with full block style |
| 700 | 710 | 010 | Type two-page letters with attention and subject lines |
| 700 | 710 | 015 | Type business letters with tables included |
| 700 | 720 | 001 | Operate the Magnetic I Card Selectric Typewriter |
| 700 | 720 | 005 | Operate the 50 unit electronic memory typewriter |
| 700 | 720 | 010 | Operate the collator |
| 700 | 720 | 015 | Operate a transcriber |
| 700 | 720 | 020 | Operate copy machine |
| 700 | 730 | 005 | Perform duties of billing clerk |
| 700 | 730 | 010 | Perform duties of credit clerk |
| 700 | 730 | 015 | Perform duties of file clerk |
| 700 | 730 | 020 | Perform duties of mail clerk |
| 700 | 740 | 001 | Proofread business letters for errors in spelling |
| 700 | 740 | 005 | Proofread business letters for errors in punctuation |
| 700 | 740 | 010 | Proofread business letters for errors in grammar |

In the example given, note that there are duplicate task numbers. This is sometimes confusing to the trainee or student in that duplicate task numbers are seen for the same program. In addition, suppose the trainee went to the LRC and asked for the written criterion exam or SLG for the secretary program - task no. 015. The LRC clerk would say, "Which one would you like?". The use of duplicate task numbers results in your having to use 6 digit rather than three digit numbers to keep track of all guides, activity sheets, exams and check sheets.

## Place Tasks into Courses

It is improper to develop a task list for each course. By doing so you will end up with duplicated tasks and other problems. All the tasks for a program should be identified first. Then courses if needed, can be carved out from the common task list. An example is given below.

LPN Task List

| | |
|---|---|
| **Providing Personal Patient Care and Assistance** | |
| 100 | Assist in Placing Telephone Calls |
| 102 | Assist a Conscious Patient to Maintain Oral Hygiene |
| 104 | Maintain Oral Hygiene for an Unconscious Patient |
| 106 | Assist a Conscious Patient with Dentures to Maintain Oral Hygiene |
| 108 | Assist in Using Bedside Commode |
| 110 | Assist in Using Bedpan |
| 112 | Assist in Using Urinal |
| 114 | Assist with Shower |
| 116 | Assist with Tub Bath |
| etc. | |
| **Performing Comfort and Safety Functions** | |
| 200 | Adjust Beds |
| 202 | Adjust side rails for Patient Safety |
| 204 | Assist Patient to Dangle |
| 206 | Assist Patient into a Wheelchair |
| 208 | Assist Patient to Ambulate |
| etc. | |

| | |
|---|---|
| **Performing Aseptic Techniques** | |
| 300 | Apply Sterile Dressings/Bandages |
| 302 | Dress Burns |
| 304 | Handle Sterile Equipment and Supplies |
| 306 | Open Sterile Packs |
| etc. | |

| | |
|---|---|
| **Administering Treatments** | |
| 400 | Administer Local Cold Applications |
| 402 | Administer Tepid Baths |
| 404 | Administer Gavage Feedings |
| 406 | Administer Local Hot Applications |
| etc. | |

Tasks 100 - 200 could become course 101 while tasks 300 - 400 could become course 102 etc. It is also possible that tasks 302, 303, and 406 could also be a part of course 103. It is also possible to take selected tasks contained within one duty to make up a course. An example would be: Tasks 100, 102, 103, 104, 106, 200, 310, 400, 700, 800, and 900 = course #104.

## ACTIVITY SHEET

002-004-005

Preparing a Numbered Task List

Directions: Please place a "T" or "F" in front of each statement.

____ 1. More than one task 001 may appear in a task list.

____ 2. Continuously numbered task lists such as 001, 002, etc., make it more difficult to add a closely related task.

____ 3. It is OKAY to use letters with numbers such as 003a for a task number.

____ 4. An advantage of computerized task lists is that new lists are always up-to-date.

____ 5. Stored task lists on a computer cannot be used to generate a certificate.

____ 6. Duplicate task numbers should be avoided when using a computer system.

____ 7. Using duplicate task numbers in a program may cause confusion with the LRC personnel.

____ 8. It is proper to develop a task list for each course.

____ 9. The assigning of numbers to tasks is purely arbitrary.

____10. Duty areas may be assigned a letter designation.

NOTE: Review your answers with the answer key on the next page.

| DEPT. | PROG | TASK | TPO | MPO |
|---|---|---|---|---|
| | PTT | 002 | 002 | 004 |

ANSWER KEY

For Activity Sheet 002-004-005

Preparing a Numbered Task List

Directions: Please check your answers with those given below. If you miss any, please review Information Sheet 002-004-004.

(T) 1. More than one task 001 may appear in a task list.

(T) 2. Continuously numbered task lists such as 001-002, etc., make it more difficult to add a closely related task.

(F) 3. It is OKAY to use letters with numbers such as 003a for a task number.

(T) 4. An advantage of computerized task lists is that new lists are always up-to-date.

(F) 5. Stored task lists on a computer cannot be used to generate a certificate.

(T) 6. Duplicate task numbers should be avoided when using a computer system.

(T) 7. Using duplicate task numbers in a program may cause confusion with the LRC personnel.

(F) 8. It is proper to develop a task list for each course.

(T) 9. The assigning of numbers to tasks is purely arbitrary.

(T) 10. Duty areas may be assigned a letter designation.

INFORMATION SHEET

002-004-006

Task Detailing

After the job analysis inventory is completed and administered to workers or to your specialized advisory committee, you need to list the steps involved in performing each of the tasks in terms of what the person does when performing each of the the steps. This procedure is called task detailing. Each task performed on the job and rated as "essential" should be "detailed" and included in your curriculum.

If task detailing is not done, a lot of time may be spent (1) teaching a difficult but relatively unimportant task, (2) teaching a task which is easily taught but is not needed on the job, or (3) forgetting to include in the curriculum something that is relatively easy to teach but that is essential to learn. By knowing in detail what the task involves, the teacher can decide how deeply to go into a task.

In listing the steps that should be included in the performance of a task, be sure to consider when the task is to be performed, what tools and materials are needed, and any safety procedures associated with the task. In addition, be aware that some steps necessary to performance may not be observable. For example, knowing when to do a task, knowing how to decide what to do, and knowing when the task is done are not readily observable behaviors but may be required steps in the task.

In order to determine your micro-performance, intermediate, or enabling objectives for each task, you must be able to do three things:

- Describe the knowing elements of each task
- Describe the doing elements of each task
- Decide on logical blocks in which to group these knowing and doing elements in each task

This process of listing the knowing and doing elements in a task is called task detailing.

INFORMATION SHEET

002-004-006 (Cont'd.)

Task Detailing

Location of Step Statements

Most occupational analyses available to you from various sources do not list the steps to be followed to perform a task. V-TECS, however, does list the steps for performing tasks. In a V-TECS catalog the steps are referred to as a Performance Guide. An example from the V-TECS Auto Body Catalog is as follows:

Duty: Painting and Refinishing

Task: Paint Surfaces

Performance Guide:

1. Inspect area to be refinished
2. Determine type and amount of paint
3. Mix and prepare paint
   - A. Strain paint into cup
   - B. Select proper thinner or reducer
   - C. Reduce paint to assure accurate color match
   - D. Add any necessary additives (i.e., silicone, additive, retarder)
4. Set air pressure
5. Adjust pattern and fluid control
6. Apply necessary number of coats allowing drying time between coats

Task Detailing Procedures

One effective way to do task detailing is to take a blank piece of paper, write the task at the top of the page, then proceed to write step-by-step directions on how to do the task your are teaching. Write out the details of the job to be performed. When detailing, consider the following points:

- Be sure to write the task details in the order in which they should be done.

- Make sure each detail begins with an action verb.
- Detail both the "knowing" and "doing" elements of each task.
- Number each task detail.
- Be as specific as you can.

Worksheets may help in detailing tasks. The following are sample task detailing worksheets taken from V-TECS and represent formats that can be used in collecting and recording task detailing information. Sheet #1 can be used by workers currently employed in the field to indicate: the tools, equipment, materials, and supplies required for a task; the individual steps needed to complete the entire task, task completion time, any checks used to ensure satisfactory task performance; and the rules, guidelines, and standards that govern task performance. With this information, the instructor can list the steps required in performing the task and establish the conditions and standards for performance using Worksheet #2.

With the task detailing information, the instructor can make decisions on which teaching technique is appropriate, what content is to be taught, and what materials are to be used.

INFORMATION SHEET

002-004-006 (Cont'd.) Sample

Task Detailing Worksheet #1

Name_____
Company_____
City_____
Type Work_____
Date_____

V-TECS
Task Detailing
Worksheet #1

NOTES:

TASK:

| DEPT. | PROG | TASK | TPO | WPO |
|---|---|---|---|---|
| PTT | 002 | 002 | 004 | |

| *Tools and/or Equipment | List below those individual steps a worker would take to complete the entire task. | Estimate task completion time Hours | Minutes |
|---|---|---|---|
| *Materials/Supplies | NOTE: If insufficient space exists to complete task steps, continue on back of this worksheet. What checks would a worker make to ensure satisfactory task performance? | | |
| *Do not use trade names unless trade names are commonly used to describe these items. | What rules, guidelines, regulations, standards, etc., caused you to perform the above task in the manner it was performed? | | |

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INFORMATION SHEET

002-004-006 (Cont'd.) Sample

Task Detailing Worksheet #2

DUTY:

TASK:

| Steps in Performing Task | Conditions | Standards | References for Standards |
|---|---|---|---|
| | | | |

| DEPT. | PROG | TASK | TPO | WPO |
|---|---|---|---|---|
| PTT | 002 | 002 | 004 | |



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INFORMATION SHEET

002-004-006 (Cont'd.) Sample Completed

Task Detailing Worksheet #2

DUTY: F. Shampooing and Rinsing Hair

TASK: F-1 Give Plain Shampoo

| Steps in Performing Task | Conditions | Standards | References for Standards |
|---|---|---|---|
| 1. Seat patron comfortably.<br>2. Select and arrange required materials.<br>3. Wash and sanitize hands.<br>4. Drape patron.<br>5. Ask patron to remove neck or ear jewelry and glasses.<br>6. Remove all hair pins from hair.<br>7. Examine condition of patron's hair and scalp.<br>8. Brush hair thoroughly.<br>9. Adjust shampoo cape over back of shampoo chair.<br>10. Adjust volume and temperature of water spray.<br>11. Wet hair thoroughly.<br>12. Apply shampoo.<br>13. Give manipulations.<br>14. Rinse hair thoroughly.<br>15. Apply shampoo again.<br>16. Rinse hair thoroughly.<br>17. Partially towel dry hair. | Given needed equipment and supplies and provided with a patron. | a. Patron is satisfied.<br>b. Oil and soil are removed from hair.<br>c. Soap curds are removed from hair.<br>d. Process completed in approximately 5 minutes. | Van Dean Manual |

Sources Consulted: The Van Dean Manual, 1974, pg. 43-45; and Standard Textbook of Cosmetology, 1972, pg. 45-47.

| DEPT. | PROG | TASK | TPO | MPO |
|---|---|---|---|---|
| PTT | 002 | 002 | 004 | |



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The following checklist may be used to evaluate your task detailing lists.

# PRODUCT CHECKLIST
## Task Detailing

| CRITICAL ITEMS | ITEMS TO BE OBSERVED OR CHECKED | RATING YES | RATING NO |
|---|---|---|---|
| * | 1. Stated all steps required to perform the task. | | |
| | 2. Constructed each statement as a complete sentence. | | |
| * | 3. Used an action verb to begin each step. | | |
| * | 4. Listed the steps in a logical order to complete the task. | | |
| * | 5. Used terminology consistent with current usage in occupational field. | | |
| * | 6. Detailed both "knowing" and "doing" elements of each task. | | |
| * | 7. Assigned a number to each task detail. | | |
| | 8. Stated each detail in specific terms. | | |
| | TOTAL POINTS EARNED = | | |

POINTS NEEDED FOR MASTERY = 6
TOTAL POINTS POSSIBLE = 8

| DEPT. | PROG | TASK | TPO | MPO |
|---|---|---|---|---|
| | PTT | 002 | 002 | 004 |

Page 83

ACTIVITY SHEET

002-004-007

Task Detailing

Directions: Please mark "T" for true and "F" for false. Then check your answers with the answer key on the next page.

____ 1. Each task rated as essential should be detailed.

____ 2. If task detailing is not done, a lot of time may be spent teaching a difficult but relatively unimportant task.

____ 3. There are no known sources for task details.

____ 4. It is important to consider safety procedures when detailing tasks.

____ 5. The term, "paint surfaces" is an example of a detail.

____ 6. Task detailing is the writing of step-by-step directions on how to perform a task.

____ 7. When task detailing, it is not important to number each detail.

____ 8. It is important to write the task details in the order in which they should be done.

____ 9. Performance guide and task details mean the same thing.

____10. "Set air pressure" is a task detail.

| DEPT. | PROG | TASK | TPO | MPO |
|---|---|---|---|---|
| | PTT | 002 | 002 | 004 |

ANSWER KEY

For Activity Sheet 002-004-007

Task Detailing

Directions: Check your answers with those listed below. If you miss more than one, please review Information Sheet 002-004-006.

(T) 1. Each task rated as essential should be detailed.

(T) 2. If task detailing is not done, a lot of time may be spent teaching a difficult but relatively unimportant task.

(F) 3. There are no known sources for task details.

(T) 4. It is important to consider safety procedures when detailing tasks.

(F) 5. The term, "paint surfaces" is an example of a detail.

(T) 6. Task detailing is the writing of step-by-step directions on how to perform a task.

(F) 7. When task detailing, it is not important to number each detail.

(T) 8. It is important to write the task details in the order in which they should be done.

(T) 9. Performance guide and task details mean the same thing.

(T) 10. "Set air pressure" is a task detail.

PROGRAM Professional Teacher Training

CRITERION EXAM

TASK # 002

DIRECTIONS:

THE PURPOSE OF THIS EXAM IS TO DETERMINE WHETHER OR NOT YOU HAVE UNDERSTOOD THE INFORMATION ON identifying, verifying, and sequencing job tasks.

Each of the questions or incomplete statements below is followed by several words, phrases, or a series of numbers. Choose the one which best answers the question or completes the statement correctly. Place the letter associated with that choice (A, B, C or D) in the numbered blank space on your ANSWER SHEET. DO NOT WRITE ON THIS TEST! To master this exam you must answer 18 out of 18 items correctly, ( 100 %).

Written Criterion Exam

Task 002

Identify, Verify, and Sequence Job Tasks

Directions: Please complete the following without resources or assistance.

1. If new to a school, who should you contact first to locate a program job description?

   A. Department chairperson or director
   B. Advisory committee chairperson
   C. Potential employees
   D. All of the above

2. Which of the following are sources to familiarize yourself with possible jobs?

   A. DOT manual
   B. V-TECS Catalogs
   C. Illinois Vocational Curriculum Center
   D. All of the above

T F 3. For new and emerging occupations, experts in the field are the only true source for information.

T F 4. A job description is not needed in order to identify tasks for a new and emerging occupation.

T F 5. A panel of experts may be used to identify tasks for a new and emerging occupation.

T F 6. A task statement should always begin with an action verb.

T F 7. A duty area may contain only one task.

T F 8. ERIC is a source for tasks.

(Please indicate with a check-mark which of the following tasks are correctly stated)

____ 9. Weld a lap joint

____ 10. Complete a job application correctly

____ 11. Type a form letter

____ 12. Operate the grill safely

____ 13. Troubleshooting the automobile electrical system

____ 14. Supervise three-year old children

Written Criterion Exam (Cont'd.)

____ 15. To be able to balance a ration

____ 16. Installs lights

T F 17. A curriculum planner should sequence job tasks to insure that the sequence of learning is from simple to complex.

T F 18. The performance of an "unrelated" task is dependent upon the learning of other tasks.

ANSWER KEY for

Written Criterion Exam

Task 002

Identify, Verify, and Sequence Job Tasks

Directions: Please compare your answers with the answers on this answer key.

1. Who should you contact to locate a program job description?

   (A) Department chairperson or director
   B. Advisory committee chairperson
   C. Potential employees
   D. All of the above

2. Which of the following are sources to familiarize yourself with possible jobs?

   A. DOT manual
   B. V-TECS Catalogs
   C. Illinois Vocational Curriculum Center
   (D) All of the above

T (F) 3. For new and emerging occupations, experts in the field are the only true source for information.

T (F) 4. A job description is not needed in order to identify tasks for a new and emerging occupation.

(T) F 5. A panel of experts may be used to identify tasks for a new and emerging occupation.

(T) F 6. A task statement should always begin with an action verb.

T (F) 7. A duty area may contain only one task.

(T) F 8. ERIC is a source for tasks.

(Please indicate with a check-mark which of the following tasks are correctly stated)

✓ 9. Weld a lap joint

___ 10. Complete a job application correctly

✓ 11. Type a form letter

___ 12. Operate the grill safely

___ 13. Troubleshooting the automobile electrical system

✓ 14. Supervise three-year old children

| DEPT. | PROG | TASK | TPO | MPO |
|---|---|---|---|---|
| | P.T.T. | 002 | 002 | 004 |

Written Criterion Exam (Cont'd.)

____ 15. To be able to balance a ration

____ 16. Installs lights

(T) F 17. A curriculum planner should sequence job tasks to insure that the sequence of learning is from simple to complex.

T (F) 18. The performance of an "unrelated" task is dependent upon the learning of other tasks.

| DEPT. | PROG | TASK | TPO | MFG |
|---|---|---|---|---|
| | P.T.T. | 002 | 002 | 004 |

ACTIVITY SHEET

002-004-008

Identify, Verify, and Sequence Job Tasks

Directions: Locate task lists for your occupational program area. Make copies of Form 002A and enter your duties and tasks on the form using the guidelines presented in this manual. Using checklist 002, evaluate your tasks and duties on the inventory. In addition, ask someone in your institution who knows about CBVE to also evaluate your tasks and duties. If no one is available, contact your regional ICBVE consultant. When all critical items can be rated "yes," then your task list meets the standards for CBVE.

**PROGRAM:** Professional Teacher Training

**TASK:** Identify, Verify, and Sequence Job Tasks

**TASK #** 002

**PERFORMANCE/PRODUCT CHECKLIST**

**STUDENT'S NAME** _____ **EVALUATION SITE** _____

**EVALUATOR'S NAME** _____ **PERFORMANCE ATTEMPT** 1 2 3 4

**DATE OF ATTEMPT** ____ ____ ____ ____

**TERMINAL PERFORMANCE OBJECTIVE:**

Given a job duty in your occupational area, identify, verify, and sequence job tasks.

**DIRECTIONS TO THE STUDENT:**

BEFORE ATTEMPTING THIS TASK FOR MASTERY, CAREFULLY REVIEW THIS CHECKLIST. YOU WILL BE EVALUATED ON THE BASIS OF THIS CHECKLIST. WHEN YOU FEEL YOU ARE READY FOR EVALUATION CONTACT YOUR INSTRUCTOR. YOU MUST COMPLETE YOUR PERFORMANCE WITHIN _____ MINUTES AND MUST SCORE AT LEAST 12 OUT OF 14 POINTS OR 85 % FOR MASTERY. CRITICAL ITEMS ARE MARKED WITH AN ASTERISK (*). THESE ITEMS MUST BE SATISFACTORILY COMPLETED.

**DIRECTIONS TO THE EVALUATOR:**

THE STUDENT WILL CONTACT YOU WHEN READY FOR EVALUATION. THE STUDENT MUST COMPLETE THE PERFORMANCE WITHIN _____ MINUTES AND MUST SCORE 12 OUT OF 14 POINTS OR 85 % AND ALL ITEMS MARKED WITH AN ASTERISK (*) MUST BE SATISFACTORILY COMPLETED.

| DEPT. | PROG | TASK | TPO | MPO |
|---|---|---|---|---|
| | P.T.T. | 002 | 002 | 004 |

| CRITICAL ITEMS | ITEMS TO BE OBSERVED OR CHECKED | RATING YES | RATING NO |
|---|---|---|---|
| | Duties | | |
| * | 1. Constructed each duty statement to represent a segment of the total job. | | |
| * | 2. Constructed each duty statement to describe what is being done. | | |
| * | 3. Used action verb ("ing" form) for each duty statement followed by object or function. | | |
| | Tasks | | |
| * | 4. Stated all tasks required to perform each duty. | | |
| * | 5. Constructed each task statement as a complete sentence. | | |
| * | 6. Used an action verb to begin each task statement. | | |
| * | 7. Stated each task statement to represent independent work activities. | | |
| * | 8. Listed the task statements in a logical work order which is necessary to perform the duty. | | |
| * | 9. Used terminology in task statements which is consistent with current usage in occupational field. | | |
| | 10. Designed each task statement so that it is rateable in terms of relative time spent performing the task. | | |
| * | 11. Designed each statement to communicate to the student and others what must be done to master the task. | | |
| * | 12. Listed two or more tasks under each duty. | | |
| | 13. Worded each statement for shortness and conciseness. | | |
| * | 14. Spelled out all words and did not use abbreviations. | | |
| | TOTAL POINTS EARNED = | | |

POINTS NEEDED FOR MASTERY = 12
TOTAL POINTS POSSIBLE = 14

| DEPT | PROG | TASK | TPO | MPO |
|---|---|---|---|---|
| | P.T.T. | 002 | 002 | 004 |